<div align="center">**EXAMINER'S AMENDMENT**</div>

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

Claim 10 Line 5: Changed "models comprising;" to – models comprising: –.

Claim 13 Line 4: Changed "models comprising;" to – models comprising: –.

Claim 20 Line 5: Changed "models comprising;" to – models comprising: –.

Claim 21 Line 4: Changed "models comprising;" to – models comprising: –.

<div align="center">***Reasons for Allowance***</div>

The following is an examiner's statement of reasons for allowance: Claims 4 and 10-25 are considered allowable since when reading the claims in light of the specification, as per MPEP §2111.01 or In re Sneed, 710 F.2d 1544, 1548, 218 USPQ 385, 388 (Fed. Cir. 1983), none of the references of record alone or in combination disclose or suggest the combination of limitations specified in the independent claims including:

-   means for combining the outputs of said neural network to generate an average value for each depth point in the borehole in the context of, and in combination with, the other limitations specified in independent claim 4; or

-   artificial neural network training related to a plurality of chirp models having continuously increasing layer thicknesses and having parameter contrasts selected so that the highest and lowest parameter limits are substantially at the upper and lower limits of the selected tool operating range, and a plurality of Oklahoma models having parameter contrasts selected so that the highest and lowest parameter limits are substantially at the upper and lower limits of the selected tool operating range in the context of, and in combination with, the other limitations specified in independent claims 10, 13, 20, and 21.

The above limitation recited in claim 4 is supported at e.g., ¶¶67,70,73,76 of the specification as originally filed.

The above limitation recited in claims 10, 13, 20, and 21 is supported at e.g., ¶¶57-64 and Figures 5-6 of the specification as originally filed.

Claims 4 and 10-25 are herein renumbered as claims 1-17, respectively.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Correspondence Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BENJAMIN BUSS whose telephone number is (571)272-5831. The examiner can normally be reached on at least Monday, Tuesday, Thursday, or Friday 9AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Sparks can be reached on 571-272-4201. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Benjamin Buss
Examiner
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/B. B./   /Donald Sparks/
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